



## **BORDIER STINKY FREE (KEEPS THE RESTROOM AWAY FROM UNPLEASANT ODORS)**

### **FIELD OF THE INVENTION**

This invention, the *Bordier Stinky Free*, was designed to eliminate unpleasant odors from restroom toilets.

### **BACKGROUND OF THE INVENTION**

It is well known the unpleasant odors produced by the human body are associated with the use of bathroom toilets, and that conventional bathroom air extractors are not sufficiently effective or quick enough to clear unpleasant odors from the restroom. This is the reason why the *Bordier Stinky Free* was invented.

### **OBJECTS OF THE INVENTION**

It is an object of the invention to provide a quick and effective way of maintaining the air in a restroom fresh and free of the unpleasant odors that are produced by the human body.

### **SUMMARY OF THE INVENTION**

The invention consists of a redesigned toilet bowl containing four additional built-in ducts which includes the duct for the electric cord and switch with an attached air suction pump with its purpose to extract unpleasant odors from the toilet bowl to the sewer. *Bordier Stinky Free* also consists of a redesigned toilet that contains an integrated switch. The purpose of the switch that is built in the toilet is to automatically activate the air suction pump the moment a person sits or exerts pressure on the toilet seat. The air suction pump sends air into the connected expulsion duct and through the evacuation duct and into the sewer. The orifice of the air suction duct is located inside the upper rear part of the toilet bowl. A hose leading from the pump is connected to the toilets own expulsion duct. The air suction pump will automatically stop when a person stands up and after a few seconds when the timer stops it.

## BRIEF DESCRIPTION OF THE DRAWINGS

- Fig 1 Shows all the components of the *Bordier Stinky Free*
- Fig 1A Shows a lateral cut view of the toilet bowl and the constructed measurements
- Fig 1B Shows the suction duct, the expulsion duct, the air chamber, and the air suction pump. The dotted lines represent the duct to insert the electrical cable to the switch
- Fig 2 Shows the front of the toilet with the orifice for suction. The gap in the upper front part of the toilet bowl allows continual air passage into the orifice suction. It also demonstrates the footstool
- Fig 3 Shows the exterior backside of the toilet structure with the service window where the suction pump is installed
- Fig 4 Shows the service window cover
- Fig 5 Shows the service window cover from its side and all of its mechanisms
- Fig 6,7,8 Shows the applied base of the toilet in different angles
- Fig 9 Shows the gasket for the toilet bowl base
- Fig 10 Shows the toilet seat with its standard orifice
- Fig 11 Shows the toilet seat with a smaller orifice for children
- Fig 12 Shows the adaptable hinge from different angles

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Fig 1 Shows all the components of the *Bordier Stinky Free*

Fig 1A Shows a lateral cut view of the toilet bowl and the constructed measurements

Fig 1B Item number (1) shows the air chamber that serves to protect the pump in case water tries to reach it during toilet bowl cleaning or excessive water flow due to clogging. Item number (2) shows how this orifice is to drain the water that might enter the chamber back into the toilet when it is cleaned or during clogging, therefore, avoiding getting water into the air suction pump. The orifice is designed to give a neat appearance as shown on the design. The suction duct as shown in item number (8) in the back of the chamber is the exit for the extracted air. Afterwards, the air goes through a hose to the air suction pump as shown on item number (7) where it is pushed out through another hose leading down to the expulsion duct as shown in figure (9), which is located in the lower part of the evacuation duct. From this point, the extracted foul air follows its course to the sewer. Item number (5) shows the switch and item number (10) shows the timer with its electrical wiring along with item number (4), which is the electric cable. Item number (6) shows the electrical plug. Item number (9) shows the expulsion duct. Item number (3) shows the arrows to indicate the direction of the air flow suctioned by the pump and the entry and exit points for the extracted air as shown on items (8 and 9). Item number (11) shows the footstool, which serves to bend the legs as it tightens the stomach and facilitates the rectum and its bowel movement.

Fig 2 Shows the front part of the toilet. Item number (1) shows the gap in the upper front part of the toilet bowl to allow the entry of fresh air suctioned by the pump and to be expelled along with the unwanted odors into the sewer. This gap also serves to drain excess water during toilet bowl cleaning or clogging. Item

number (3) shows the footstool to raise the feet. Item number (2) shows the suction duct orifice.

Fig 3 Shows the posterior view of the toilet. Item number (1) shows the service window where the pump is installed. Items number (3 and 4) shows the hoses for suction and expulsion air connected to the pump. Item number (5) shows the footstool to place the feet. Item number (2) is the pump.

Fig 4 Item number (1) shows the service cover with two orifices. One that helps place and remove the cover by inserting the fingers through the orifice as shown on item number (3) and the other to insert the electrical cable as shown on item number (4). Item number (2) shows a thinner and narrow prolongation that enters on the upper part of the service window as also shown on Fig 5, item number (2).

Fig 5 Shows the same details as Fig 4 from a side view. The dotted lines as shown on item number (1) show the orifice to handle the service door and item number (3) shows the seat to place the service door cover. The service door can also be installed on the side of the toilet for commodity and to avoid having to remove the toilet.

Fig 6,7,8 Shows the applied base of the toilet and viewed from different angles.

Fig 6 Item number (1) shows the frame from its front view. Item number (2) shows the orifices to screw the frame to the floor. Item number (3) shows where the elastic body is secured. Item number (4) shows the elastic body.

Fig 7 Shows the base on its side. Item numbers (1 and 2) show the elastic body.

Fig 8 Shows the base on its side view and a portion of the toilet wall that has an interior gap at the height of the elastic body to fasten to the wall as shown on item number (1).

Fig 9 Shows the gasket where the toilet is mounted. This gasket helps seal and

prevents the toilet seat from moving.

Fig 10 Shows the toilet seat with its standard orifice for adults.

Fig 11 Shows the toilet seat with a smaller orifice for children.

Fig 12 Shows the hinge from different angles and helps stabilize the earthen jar that holds the water. The two hinges are adapted to the wall based on the earthen jar size as shown in Fig 1, item number (13)